

REMARKS

The Examiner's recognition of Applicants' invention by the allowance of claims 13-17 and 40-45 is gratefully acknowledged.

Following cancellation of claim 1, and the amendment to the dependency of claims 2-5, 8, and 11, all claims 2-11 are dependent upon allowed claim 13.

In response to the question as to the document by Armstrong and Meinhardt, it is believed that the document is an internal document co-authored by Armstrong, a present inventor, at Battelle Memorial Institute, an assignee of the present invention, and has not been published.

Claim Rejection under 35 USC § 102(b)

Claims 1-12 were rejected under 35 U.S.C. § 102(b) as anticipated by United States Patent No. 5,690,800, issued to Friese et al. in 1997.

Claims 1 and 12 are cancelled. Claims 2-11 are made dependent upon allowed claim 13.

Friese '800 describes a gas sensor comprising an insulating layer 21 in Fig. 1. The rejection points to col. 3 of Friese '800, wherein compositions that may include alumina or frit are discussed for the insulating layer. However, Friese '800 does not describe a composition of alumina with frit composed of silica, boria, alumina, yttria, and RE₂O₃.

where RE_2O_3 is La_2O_3 or a three valent rare earth oxide, within the ranges recited in allowed claim 13. Since claims 2-11 are dependent upon claim 13, it follows that Friese '800 does not teach or suggest Applicants' gas sensor as set forth in claims 2-11.

Accordingly, it is respectfully requested that the rejection of the claims 2-11 based on Friese '800 be reconsidered and withdrawn, and that the claims be allowed.

Claim Rejection under 35 USC § 103

Claims 1-12 were rejected under 35 U.S.C. § 103 as unpatentable over United States Patent No. 6,350,357, issued to Wiedenmann et al., in 2002, in view of United States Patent No. 5,676,811, issued to Makino et al. in 1997, as further evidenced by United States Patent No. 4,221,650, issued to Friese et al. in 1980, and the Aldrich 2003-2004 Handbook of Fine Chemicals and Laboratory Equipment.

Claims 1 and 12 are cancelled. Claims 2-11 are dependent upon allowed claim 13.

Wiedenmann et al shows an insulating layer composed of alumina and a glass-forming material, which may be frit. For the glass-forming material, Wiedenmann et al. describes an alkaline earth silicate glass containing barium or strontium, col. 3, lines 10-18. Nothing in Wiedenmann et al. points to a frit comprising 35 mol% to 70 mol% silica, 0 mol% to 30 mol% boria, 0 mol% to 26 mol% alumina, 0 to 25 mol% yttria, and 0 to 26 mol% RE_2O_3 where RE_2O_3 is La_2O_3 or a three valent rare earth oxides, as recited in claim

13. Neither do the secondary references make up the deficiency. Makino et al is cited to show spacer 5 formed of alumina, col. 4, line 64-65, but does not suggest a composition with frit, or more particularly, a frit having a composition in accordance with Applicants' invention. Friese '650 and the Handbook are cited to show cost benefit for alumina and silicon dioxide frit over zirconia. Thus, even if the teachings of the cited references are combined, the references do not point the practitioner to the frit composition in Applicants' claim 13, as incorporated into dependent claims 2-11.

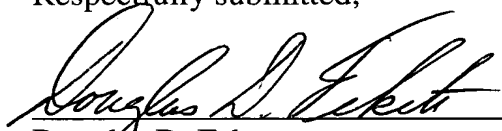
Accordingly, it is respectfully requested that the rejection of the dependent claims 2-11 under Section 103 be reconsidered and withdrawn, and that the claims be allowed.

Conclusion

It is believed, in view of the amendments and remarks herein, that all grounds of rejection of the claims have been addressed and overcome, and that all claims are in condition for allowance. If it would further prosecution of the application, the Examiner is urged to contact the undersigned at the phone number provided.

The Commissioner is hereby authorized to charge any fees associated with this communication to Deposit Account No. 50-0831.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "Douglas D. Fekete", is written over a horizontal line.

Douglas D. Fekete

Reg. No. 29,065

Delphi Technologies, Inc.

Legal Staff – M/C 480-410-202

P.O. Box 5052

Troy, Michigan 48007-5052

(248) 813-1210